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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/027,930	12/19/2001	Paul W. Dow	12821.12US01	2558
7590	04/02/2004		EXAMINER	
Merchant & Gould P.C. P.O. Box 2903 Minneapolis, MN 55402-0903			TORRES, ALICIA M	
			ART UNIT	PAPER NUMBER
			3671	

DATE MAILED: 04/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/027,930	DOW, PAUL W.
	Examiner Alicia M Torres	Art Unit 3671

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) \_\_\_\_\_. is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_. is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_. is/are allowed.
- 6) Claim(s) 1-22 is/are rejected.
- 7) Claim(s) \_\_\_\_\_. is/are objected to.
- 8) Claim(s) \_\_\_\_\_. are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_. is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 02232004.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4, 6, 10-13 and 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lohmann in view of Johnson.

3. In regards to claims 1-4 and 6 Lohmann discloses a guard (6) for a crop collecting apparatus, the guard (6) comprising:

a straight elongate member (6), each end having at least one mounting orifice (20) formed therein, as per claim 1;

wherein the mounting orifice (20) has a countersunk portion, as per claim 3; and

wherein the elongate member (6) includes a plurality of mounting orifices (20), as per claim 6.

However, Lohmann fails to disclose wherein the elongate member is coiled in an arcing configuration when mounted and returns to a straight configuration when removed, as per claim 1; and

wherein the guard is adapted for mounting under tension, as per claim 2; and

wherein the guard comprises a polyethylene member, as per claim 4.

Johnson discloses a similar tine guard (138) wherein the elongate member is made of flexible polyethylene and is coiled in an arcing configuration when mounted and returns to a straight configuration when removed, as per claim 1; and

wherein the guard (138) is adapted for mounting under tension, as per claim 2; and

wherein the guard (138) comprises a polyethylene member (see column 10, line 63-column 11, line 10), as per claim 4.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the flexible mounting of Johnson on the guard of Lohmann in order to limit the wear of the guard during use.

4. In regards to claims 10, 12 and 16, Lohmann discloses a crop collection apparatus, comprising:

a frame (not shown);

wheels (not shown) mounted to the frame;

a pick up head supported on the frame and having a rotatable reel;

a plurality of tines (3) mounted to the reel;

a housing extending around the reel, including a plurality of guards (6), wherein the guards (6) are intermediate adjacent tines (3) and alternate with the tines (3), as per claim 10; and

wherein the elongate members include mounting orifices (20) with countersunk portions,

as per claim 12; and

wherein the elongate members includes a plurality of mounting orifices (20), as per claim

16.

However, Lohmann fails to disclose wherein the guards comprise substantially straight elongate members bent around the reel when mounted, as per claim 10

Johnson discloses guards (138) wherein the guards (138) are made of flexible polyethylene that comprise substantially straight elongate members bent around the reel when mounted.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the flexible guard of Johnson on the device of Lohmann in order to limit the wear of the guard during use.

5. In regards to claims 11, 13, and 20, Lohmann discloses the device as disclosed above. However, Lohmann fails to disclose wherein the guards are under tension when mounted, as per claim 11; and

Wherein the elongate members comprise polyethylene, as per claim 13; and

Wherein each of the guards returns to a substantially straight configuration when one end of the guard is released, as per claim 20.

Johnson discloses a flexible polyethylene guard wherein the guards (138) are under tension when mounted, as per claim 11; and

Wherein the elongate members (138) comprise polyethylene, as per claim 13; and

Wherein each of the guards (138) returns to a substantially straight configuration when one end of the guard (138) is released, as per claim 20.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the flexible mounting of Johnson on the guard of Lohmann in order to limit the wear of the guard during use.

6. In regards to claim 17, Lohmann discloses a device wherein the following method for accessing a crop collection reel, the reel having an axle (11) and at least one guard (6) mounted at a first end (22) and a second end (23) in a flexed condition arcing around a portion of the reel under tension, the method comprising the steps of:

detaching only the first end (22) of the guard (6) and releasing the first end (22) of the guard (6).

However, Lohmann fails to disclose wherein the guard returns to a straight configuration upon release of the first end, pulling the guard from around the axle and extending outward from the attached second end.

Johnson discloses a flexible polyethylene guard wherein the guard (138) returns to a straight configuration upon release of the first end (140), pulling the guard (138) from around the axle (54) and extending outward from the attached second end (140).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the flexible mounting of Johnson on the guard of Lohmann in order to limit the wear of the guard during use.

7. In regards to claims 18 and 19, Lohmann discloses a crop collecting reel for mounting to a crop collection apparatus, the reel comprising:

an arbor (11);  
a plurality of tines (3), including tine sets having tines spaced apart radially around the arbor (11), wherein the tine sets are axially spaced along the arbor (11);  
a housing comprising a plurality of substantially straight elongate guards (6) intermediate adjacent tine sets, as per claim 18.

However, Lohmann fails to disclose wherein the guards are configured for mounting to the crop collection apparatus in an arcing configuration, as per claim 18; and

wherein each of the guards returns to a substantially straight configuration when one end of the guard is released, as per claim 19.

Johnson discloses a flexible polyethylene guard (138) wherein the guards (138) are configured for mounting to the crop collection apparatus (2) in an arcing configuration, as per claim 18; and

wherein each of the guards (138), made of flexible polyethylene, returns to a substantially straight configuration when one end of the guard (138) is released, as per claim 19.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the flexible mounting of Johnson on the guard of Lohmann in order to limit the wear of the guard during use.

8. Claims 5 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lohmann in view of Johnson as applied to claims 4 and 13 above, and further in view of Schweigert.

The device is disclosed as applied above. However, the combination fails to disclose wherein the polyethylene member comprises ultraviolet resistant stabilizers.

Schweigert discloses agricultural equipment wherein the bins are made of polyethylene members comprising ultraviolet stabilizers (see column 3, lines 15-18).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the ultraviolet resistant polyethylene of Schweigert on the device of Lohmann and Johnson in order to reduce the amount of material deterioration.

9. Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson in view of Lohmann.

In regards to claims 7-9, Johnson discloses a device wherein the following method of mounting a guard member is inherent, the method comprising the steps of:

providing a substantially straight elongate guard member (138) made of flexible polyethylene having mounting means (140, 144) at a first end and a second end;  
mounting the first end (140) to the crop collecting apparatus (2);  
bending the guard member (138) in an arcuate configuration;  
mounting the second end (144) to the crop collecting apparatus (2), as per claim 7; and  
wherein the guard member (138) is mounted under tension, as per claim 8.

However, Johnson fails to disclose wherein the guard is mounted to a head of a crop collecting apparatus, as per claim 7; and  
wherein the mounting means comprise ends with orifices formed therein, as per claim 9.

Lohmann discloses a crop guard (6) wherein the guard (6) is mounted to a head of a crop collecting apparatus, as per claim 7; and

wherein the mounting means comprise ends with orifices (20) formed therein, as per claim 9.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to mount the guards to a head as taught by Lohmann with the guard of Johnson in order to prevent winding of crop material.

10. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lohmann in view of Johnson and further in view of Engel.

Lohmann and Johnson disclose the device as applied to claim 13 above. However, the combination fails to disclose wherein the elongate members comprise ultra-high molecular weight polyethylene.

Engel discloses a tine stripper (46) wherein the stripper (46) is comprised of ultra-high molecular weight polyethylene (see column 2, lines 16-19).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the material of Engel on the guard of Lohmann and Johnson in order to obtain high wear tolerance.

11. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lohmann in view of Johnson and further in view of Fritz.

Lohmann and Johnson disclose the device as applied to claim 1 above. However, the combination fails to disclose wherein the substantially straight elongate member has tapered ends.

Fritz discloses a similar device wherein the ends of the guard are tapered (see figure 3, and column 3, lines 11-19).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the tapered ends of Fritz on the guard apparatus of Lohmann in order to promote lateral tine deflection and permit the tine to be cammed into the appropriate slot.

#### *Response to Arguments*

12. In regards to the claims 1-3, 6-9 and 17-19 and applicant's argument that Lohmann's spring steel strips behave differently from those claimed and fails to disclose the steps necessary to fasten the steel strips to the drum, please see the addition of Johnson US 4,915,671 in which a polyethylene guard is disclosed.

13. Applicant's arguments with respect to claim 4 have been considered but are moot in view of the new ground(s) of rejection. Please see the 103(a) rejection of Lohmann in view of Johnson.

14. Applicant's arguments with respect to claims 10-12, 16 and 20 have been considered but are moot in view of the new ground(s) of rejection. Please see the 103(a) rejection of claims 10-12, 16 and 20 of Lohmann in view of Johnson.

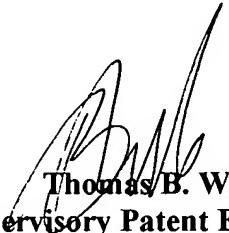
***Conclusion***

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Reynolds, MacGregor, and Russell have been cited as of interest.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia M. Torres whose telephone number is 703-305-6953. The examiner can normally be reached Monday through Thursday from 7:00 a.m. – 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas B. Will, can be reached at 703-308-3870.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is 703-305-1113. The fax number for this Group is 703-872-9306.



Thomas B. Will  
Supervisory Patent Examiner  
Group Art Unit 3671

AMT  
March 24, 2004